

CONCEPTUAL ANALYSIS OF COMMUNICATION PATHOLOGIES IN COLLECTIVE DECISION MAKING

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ABSTRACT: Collective decision making depends on communication for the expression, circulation, evaluation and integration of information and viewpoints. Yet, communication can become a source of dysfunction, allowing individually generated distortions to become embedded in collective judgement. This paper conceptually analyses communication pathologies in collective decision making and develops a framework for understanding their interrelationships. Drawing on scholarship on group decision making, information sharing, social influence, consensus formation and communication processes, the paper synthesises established concepts into a taxonomy. The analysis identifies six interconnected dimensions of communication pathology: cognitive, informational, interactional, social/interpersonal, group/consensus and power/structural. Cognitive pathologies shape how information and viewpoints are perceived and interpreted; informational pathologies affect the availability, distribution and transmission of knowledge; interactional pathologies constrain participation; social/interpersonal pathologies influence conformity and dissent; group/consensus pathologies shape collective agreement; while power/structural pathologies determine access, credibility and communicative influence. Escalation of commitment and the sunk-cost effect are treated as decision-level consequences that can reinforce communication dysfunction. The proposed

framework rejects a linear model and instead conceptualises these dimensions as mutually reinforcing processes operating before, during and after deliberation. The paper argues that decision quality depends not merely on collective agreement but on the communicative conditions through which agreement is produced effectively.

Keywords: *Collective Decision Making, Communication Pathologies, Consensus Formation, Group Decision Making, Groupthink, Information Sharing, Social Influence*

Introduction

Collective decision making is fundamentally a communicative process because decisions involving several people depend not only on the judgement of individual members but also on how information, preferences, disagreements and alternatives are communicated within the group. Communication can enable members to access information unavailable to them individually, reconsider initial positions and combine dispersed knowledge into a collective judgement. Recent research has consequently linked the quality of collective decision making to the structure and dynamics of the communication networks through which members exchange information and influence one another. Communication, therefore, is not simply the channel through which a decision is announced or discussed; it is part of the mechanism through which the decision itself is constructed.

The communicative character of collective decision making, however, does not guarantee rational, inclusive or accurate decisions. Communication can equally become a source of distortion when the information exchanged is incomplete, selectively presented, poorly evaluated or shaped by social pressures. Burton, Almaatouq, Rahimian and Hahn (2024) explicitly recognise this dual character of communication, observing that interaction among group members can facilitate access to otherwise unavailable information but can also generate detrimental social influence and groupthink. The potential for dysfunction occurs at several interconnected levels of collective communication. At the cognitive level, members may develop inaccurate assumptions about what others know or believe. At the interactional level, members may experience constraints that limit the expression or evaluation of alternative views, including production blocking and evaluation apprehension. At the social level, conformity and social influence can encourage members to adjust their expressed positions towards those perceived to be dominant or widely

accepted. At the group level, these processes can contribute to phenomena such as groupthink, premature consensus and the Abilene Paradox, where an apparent collective preference may conceal divergent individual preferences. These phenomena differ in their theoretical origins and mechanisms, but they share an important feature: the communication process can interfere with the accurate expression, transmission, evaluation or integration of relevant viewpoints and information.

Conceptualising Communication Pathologies

The expression “communication pathology” is not being used in this paper to suggest that communication itself is inherently defective or that disagreement among group members is pathological. Rather, it provides a conceptual lens for identifying recurrent patterns within communication that interfere with the capacity of a group to exchange, evaluate and integrate relevant information into a sound collective judgement. This distinction is important because communication is ordinarily one of the principal mechanisms through which collective intelligence is produced. De Dreu, Gross, and Gelfand (2020), in their review of collective choice and collaborative problem solving, show that groups can benefit from combining distributed information, yet the same informational structure can create substantial difficulties when relevant knowledge is not successfully shared or integrated. More recent scholarship similarly treats communication, preference sharing and information flow as integral components of group decision-making processes rather than as peripheral activities (Pajasmaa, Miettinen, & Silvennoinen, 2025). Communication pathology, therefore, is best understood functionally: a communication process becomes pathological when its operation persistently obstructs the informational, deliberative or relational conditions required for effective collective decision making.

This conceptualisation also requires a distinction between a communication pathology and the ordinary difficulties that accompany collective deliberation. Groups inevitably contain different opinions, unequal expertise, disagreement, hesitation and changing preferences. None of these, by themselves, constitutes pathological communication. Indeed, disagreement can be productive when it exposes assumptions, introduces previously unavailable information and forces members to reconsider weak alternatives. Vilaça (2024), examining communication and decision-making processes among organisational groups, demonstrates that the manner in which members communicate can become

consequential for group performance. Similarly, Coucke, Heinrich, and Dorigo (2024) demonstrate that the communication of confidence and individual influence can shape the development of collective decisions. The concern, therefore, is not the existence of disagreement but what happens to disagreement when the communication environment discourages its expression, distorts its interpretation, privileges some information over other relevant information or converts private reservations into public conformity.

Communication pathologies can consequently be located at different but interconnected levels of collective decision making. At the cognitive level, members may misjudge what others believe, assuming that their own views are more widely shared than they actually are (false consensus effect), or selectively interpret information in ways that confirm their existing positions (confirmation bias). At the informational level, relevant knowledge may remain distributed among individuals without being effectively pooled, particularly when members repeatedly discuss information already known to others rather than information uniquely held by particular participants (shared-information bias), thereby creating hidden-profile conditions. At the interactional level, the structure of communication may prevent members from contributing fully when competing speakers, limited speaking opportunities or conversational sequencing restrict the expression of ideas (production blocking), while fear that one's contribution may be negatively evaluated can lead individuals to withhold potentially useful alternatives (evaluation apprehension).

At the social level, members may adjust their expressed positions towards those of others because of pressure to conform (conformity pressure), evaluate their own positions in relation to those publicly expressed by colleagues (social comparison), or defer to participants perceived as more authoritative or prestigious (status effects). At the group level, the cumulative effect of these processes may produce excessive striving for unanimity at the expense of critical evaluation (groupthink), movement towards more extreme positions following discussion (group polarisation), agreement before adequate alternatives have been examined (premature consensus), or collective adoption of a course of action that individual members privately do not favour because they mistakenly believe that others support it (Abilene Paradox). Contemporary research on digitally mediated collective decision making reinforces the importance of these distinctions by demonstrating that communication networks can simultaneously facilitate collective

accuracy and create conditions under which social influence affects judgement (Burton, Almaatouq, Rahimian, & Hahn, 2024). The pathology, therefore, may reside not in a single communicative act but in the interaction between several processes operating across the decision-making system.

On this basis, this paper conceptualises communication pathologies as *recurrent cognitive, informational, interactional, social, group and structural processes that impair the effective expression, transmission, evaluation or integration of information and viewpoints during collective decision making*. This definition provides sufficient breadth to accommodate the phenomena examined in the subsequent sections without treating them as theoretically identical. False consensus and confirmation bias, for example, primarily concern cognition; production blocking and evaluation apprehension concern interaction; selective information sharing concerns the informational process; conformity and social comparison concern social influence; groupthink, group polarisation and the Abilene Paradox concern collective processes; while authority dominance, status effects and gatekeeping concern structural conditions. The concept consequently serves as an organising framework rather than a claim that these phenomena originated from a single theory or have previously been classified universally under the term “communication pathologies”. Its value lies in bringing them into analytical conversation and asking a common question: how can the process of communicating within a group progressively compromise the quality of the decision that the group ultimately produces? This question provides the conceptual foundation for the taxonomy developed in the next section.

Collective Decision Making and the Role of Communication

Collective decision making differs from individual choice because knowledge and preferences are distributed across multiple actors, allowing groups to potentially produce superior judgments through complementary perspectives (Stasser & Abele, 2020). However, this potential depends entirely on communication. Groups frequently struggle with hidden profiles, where critical information remains unshared or unintegrated, leading to poor decisions despite possessing the necessary data (Borrero, 2023). Communication serves a vital informational dimension. Groups systematically display a shared-information bias, devoting disproportionate conversational attention to facts already known by everyone rather than unique, diagnostic insights held by individuals (Wittenbaum & Park,

2001; Reimer et al., 2010). Collective decision making is thus an active process of information selection, transmission, and integration where communication pathways can either optimize or diminish available resources (López & García, 2022). Beyond information exchange, communication performs a crucial social function. Members enter deliberation with prior preferences, status concerns, and authority perceptions that shape how they express and interpret messages (Tran et al., 2024). Consensus formation is a dynamic social-network sequence involving belief updating, information diffusion, and social influence (Wen et al., 2025). Communication acts as the environment where preferences are modified, disagreements are voiced or suppressed, and consensus is constructed. These dynamics are further amplified when communication is analyzed structurally as a network. Members occupy varied relational positions such as central bridges or isolated peripheries that dictate their level of influence (Martínez, 2024). Decisions may ultimately reflect only the information circulating through a small subset of the network rather than the entire group. When structural mechanisms restrict information flow, amplify conformity, or silence dissent, communication shifts from being the vehicle of effective collective choices into the primary mechanism that produces defective decisions.

Taxonomy of Communication Pathologies in Collective Decision Making

Communication pathologies in collective decision making form an interconnected systemic process spanning individual cognition, information exchange, and interactional mechanics, rather than isolated failures of speech (Da Costa et al., 2021). As noted by Smith (2022), "communication pathologies can fundamentally warp organisational consensus before deliberations even begin." Cognitive pathologies originate when pre-existing frames such as false consensus, confirmation bias, anchoring, and status quo bias, distort how members perceive and interpret positions (Johnson, 2023). These biases mean that "improving the sheer quantity of communication cannot guarantee better choices if underlying cognitive frames systematically favor prior conclusions" (Brown, 2020, p. 114). Informational pathologies subsequently arise when groups privilege shared data over unique insights, creating selective sharing, asymmetry, and distortion (Davis et al., 2024). As Taylor and Evans (2021) observe, "the central problem is rarely a lack of organisational data, but rather whether communication networks allow critical information to reach decision-

makers in time." Finally, interactional pathologies emerge from the mechanics of group discussion itself. Phenomena such as production blocking, evaluation apprehension, and communication apprehension restrict participation, turning silence into coerced agreement (Wilson, 2022). Consequently, "an effective decision-making environment requires structured conditions where diverse ideas can survive evaluation rather than merely offering an abstract opportunity to speak" (Miller, 2025, p. 45). Because network architectures jointly shape error likelihood and consensus time (Da Costa et al., 2021), communication ceases to be a neutral vehicle and becomes a primary mechanism producing defective choices when structural barriers amplify conformity, silence dissent, or restrict information flow.

Table 1: Taxonomy of Communication Pathologies in Collective Decision Making

Dimension	Communication pathology	Core mechanism	Potential consequence for collective decision making
Cognitive	False consensus effect	Assuming that others share one's beliefs or preferences	Misrepresentation of the actual distribution of opinions
Cognitive	Confirmation bias	Selective attention to information supporting existing beliefs	Resistance to contradictory evidence
Cognitive	Anchoring bias	Excessive reliance on an initial idea or position	Subsequent deliberation becomes constrained by the initial position
Cognitive	Availability bias	Giving disproportionate weight to readily recalled information	Distorted assessment of evidence and alternatives
Cognitive	Status quo bias	Preference for existing arrangements over alternatives	Uncritical retention of existing decisions
Informational	Shared-information bias	Greater discussion of information already known to several members	Unique and potentially decisive information remains undisclosed
Informational	Selective information sharing	Selective disclosure or circulation of available information	Incomplete informational basis for decision making
Informational	Information asymmetry	Unequal possession or access to relevant information	Some members participate with substantially different informational resources
Informational	Information distortion	Alteration, simplification or reinterpretation as	Collective decision is based on an inaccurate

		information circulates	representation of the original information
Interactional	Production blocking	Members are unable to express ideas because of competing communication demands	Potentially useful ideas are delayed, forgotten or never introduced
Interactional	Evaluation apprehension	Reluctance to express ideas because of anticipated negative evaluation	Suppression or dilution of dissenting contributions
Interactional	Communication apprehension	Anxiety or discomfort associated with participation	Reduced participation and communicative withdrawal
Social	Conformity pressure	Adjustment of expressed views towards perceived group expectations	Reduction of genuine disagreement
Social	Social comparison	Members adjust contributions after comparing themselves with others	Convergence of opinions and reduced originality
Social	Social loafing	Reduced individual effort when responsibility is shared	Unequal participation and diminished collective effort
Social	Minority influence suppression	Dissenting or minority positions receive insufficient consideration	Loss of alternative perspectives
Group	Groupthink	Pressure for cohesion and unanimity overrides critical evaluation	Defective alternatives are insufficiently challenged
Group	Group polarisation	Group discussion moves members towards more extreme positions	More extreme collective decisions
Group	Premature consensus	Agreement is reached before alternatives are adequately examined	Closure before sufficient deliberation
Group	Abilene Paradox	Members publicly support a decision they privately do not prefer	Apparent consensus masks genuine disagreement
Power/structural	Authority dominance	Higher-status or authoritative members disproportionately shape discussion	Subordinate members may withhold disagreement
Power/structural	Status effects	Perceived status affects whose contributions receive attention	Unequal influence over collective judgement
Power/structural	Gatekeeping	Particular actors control access to information or	Selective circulation of information and

		participation	viewpoints
Power/structural	Communication centralisation	Communication is concentrated around a small number of actors	Dependence on central actors and restricted information flow
Decision	Escalation of commitment	Continued support for a failing decision because resources have already been invested	Persistence with ineffective decisions
Decision	Sunk-cost effect	Previous investments influence continued commitment to a course of action	Reluctance to abandon an unsuccessful decision

Cognitive communication pathologies materialise before verbalisation begins, dictating how actors perceive, organize, interpret, and evaluate input through the false consensus effect, confirmation bias, anchoring, and availability bias. Jalbert and Pillai (2024) demonstrate that repeated exposure inflates perceptions of shared knowledge, while these framing mechanisms mean groups deceptively appear rational while selectively processing data. *Status quo bias* and *attribution bias* compound these cognitive frames by favoring existing baseline arrangements to avoid perceived losses or uncertainty, while misinterpreting a colleague's silence as agreement or attributing disagreement to personal dispositions rather than valid experiential differences. These internal distortions lay the foundational groundwork that later enables observable interactional breakdowns.

Informational communication pathologies disrupt the generation, circulation, and integration of knowledge, governed heavily by the distribution dynamics outlined by Stasser and Abele (2020). Groups systematically exhibit a *shared-information bias*, prioritising familiar data over unique insights (Wittenbaum & Park, 2001; Reimer et al., 2010), meaning extensive discussions remain informationally deficient if they merely recycle known concepts. *Selective information sharing*, *information asymmetry*, and *information distortion* further degrade processing when participants filter messages based on hierarchical pressures, interpersonal expectations, or cognitive constraints. As Burton et al. (2024) emphasize, underlying network architectures dictate whether dispersed institutional knowledge is successfully aggregated or diverted into systemic collective errors.

Social and interpersonal pathologies emerge from pre-existing relationships, *conformity pressure*, and *social comparison*, where participants adjust expressed views toward

dominant factions to secure acceptance (Li et al., 2023). Social loafing and the suppression of minority influence exacerbate this, as individuals reduce communicative effort or withdraw entirely, transforming harmonious groups into environments where interpersonal safety replaces critical examination. *Group and consensus pathologies* encompass groupthink, group polarisation, premature consensus, and the Abilene Paradox, where mutual misperceptions manufacture unearned uniformity (Flores et al., 2026). Simultaneously, authority dominance, status effects, and gatekeeping concentrate influence around specific actors, restricting open participation and ensuring that agreement supersedes rigorous reasoning. Decision-level consequences represent the recursive culmination of these earlier structural breakdowns, epitomised by the escalation of commitment and the sunk-cost effect. Previous investments, biased communicative loops, and defensive interpretations lock groups into failing courses of action, proving that communication pathology forms an interconnected system where initial flaws systematically resist future correction.

Interrelationships among Communication Pathologies

The taxonomy developed in the preceding section should not be interpreted as a set of independent communication failures. In actual collective decision making, the different pathologies are likely to occur simultaneously and to reinforce one another. A cognitive bias may determine which information a participant notices, an informational pathology may determine which of that information reaches the group, an interactional pathology may determine whether other members have an opportunity to challenge it, while a social or structural pathology may determine whose interpretation ultimately prevails. Collective decision failure can therefore emerge not from one defective communication behaviour but from the interaction of several relatively small distortions across the decision process. Stasser and Abele (2020) demonstrate the importance of considering individual information processing, information distribution and group communication together, while Okhueigbe and Onuh (2025) similarly locate group decision making within interconnected processes of belief formation, information diffusion, social influence and belief updating.

One important interaction occurs between cognitive and informational pathologies. Confirmation bias, for example, can encourage members to communicate information that

supports their existing position while giving less attention to contradictory evidence. When several members do this simultaneously, selective information sharing can create an informational environment that appears to confirm the group's initial judgement. False consensus can further strengthen the process because individuals may assume that others already agree with them and therefore see little need to explain or defend their position. The group consequently becomes less likely to discover information that could challenge the emerging consensus. In this manner, a cognitive tendency at the individual level can become an informational condition at the group level.

Interactional and social pathologies can similarly reinforce one another. Evaluation apprehension may cause a participant to hesitate before expressing disagreement, while conformity pressure may provide an additional reason for remaining silent after a dominant position has emerged. If other members interpret the resulting silence as agreement, false consensus is strengthened. The Abilene Paradox represents an extreme expression of this interaction because members may collectively support a course of action largely because they incorrectly believe that others favour it. What appears externally as consensus may therefore be produced by a sequence of silence, assumption, conformity and further silence. Communication pathology consequently has a cumulative quality: one distortion can create the conditions under which another distortion becomes more likely.

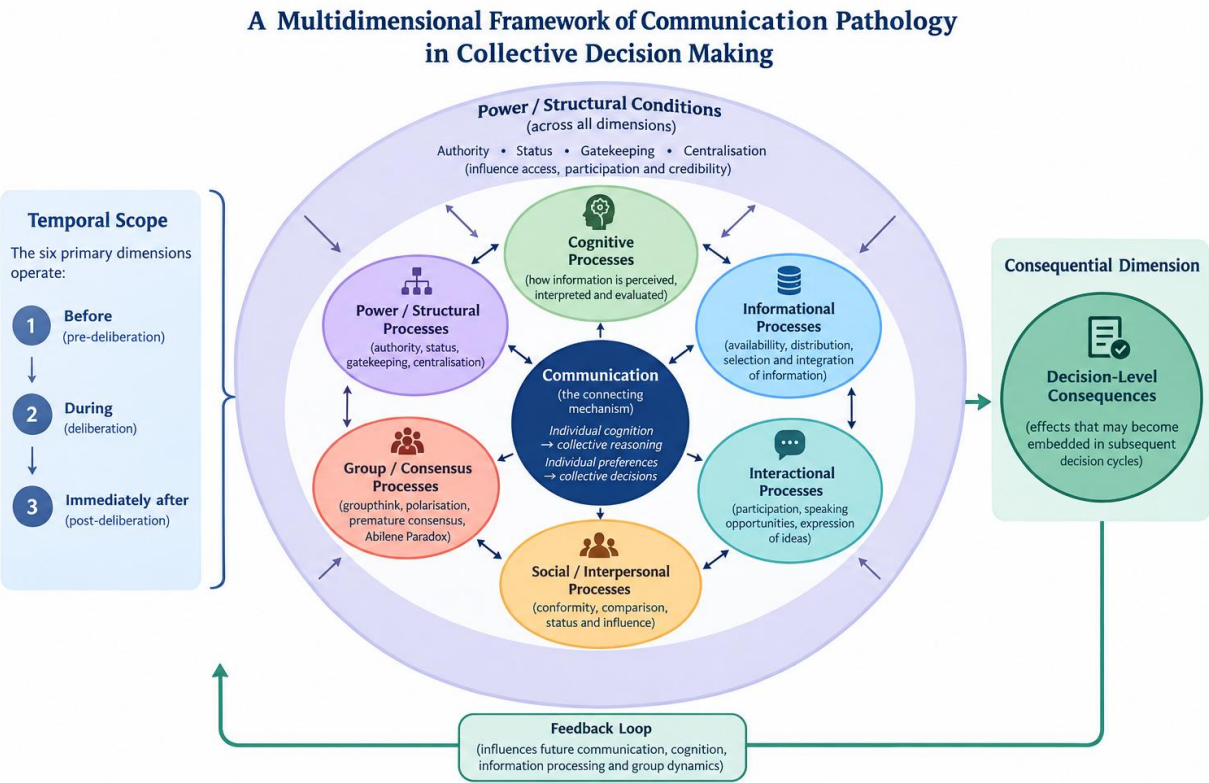
Power and structural conditions can amplify all these processes. Authority dominance may discourage dissent, communication centralisation may restrict the circulation of alternative information, and gatekeeping may determine which viewpoints enter the discussion at all. Once these structural conditions are established, groupthink and premature consensus become easier to sustain because the communicative environment already favours particular interpretations. Burton, Almaatouq, Rahimian and Hahn (2024) show that communication structures within online social networks can affect collective decision quality and may facilitate either effective information aggregation or undesirable social influence. The implication extends beyond digital networks: the structure through which members communicate is itself part of the decision-making environment.

The interrelationships can therefore be represented as a reinforcing cycle. Cognitive biases influence what members attend to and communicate; information-sharing processes determine what becomes collectively available; interactional conditions influence

participation; social pressures shape conformity and dissent; group processes convert communication into consensus; and power structures determine whose contributions carry greater weight. The resulting decision can then generate further commitment, defensive communication and selective interpretation of subsequent evidence. Communication pathology is consequently better understood as a systemic process than as an isolated individual defect. This systems perspective provides the conceptual foundation for the framework proposed in the next section.

Proposed Conceptual Framework

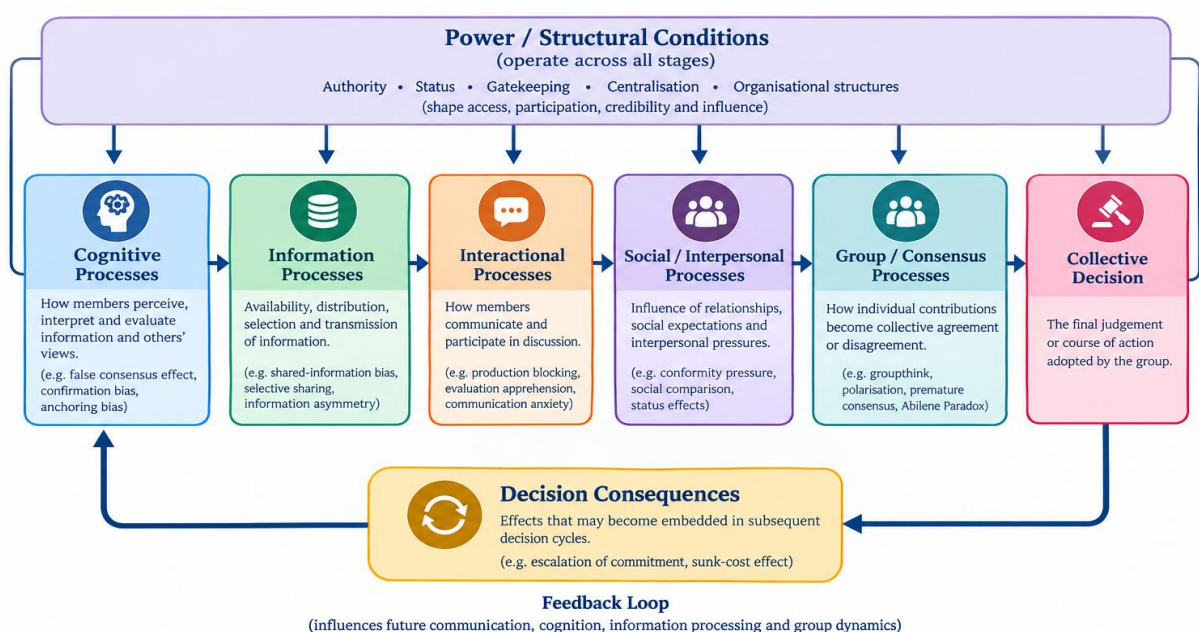
The proposed framework conceptualises communication pathology in collective decision making as a multilayered process involving six primary dimensions and one consequential dimension. The six primary dimensions are cognitive, informational, interactional, social/interpersonal, group/consensus and power/structural processes. These dimensions operate before, during and immediately after collective deliberation, while decision-level consequences represent the effects that may become embedded in subsequent decision cycles. The framework assumes that communication is the connecting mechanism through which individual cognition becomes collective reasoning and through which individual preferences become collective decisions.



At the cognitive level, members enter collective deliberation with interpretive tendencies that influence what they notice, remember and consider credible. These tendencies affect the information they communicate and the manner in which they interpret the contributions of others. At the informational level, the relevant question becomes whether knowledge is adequately distributed and integrated. Shared-information bias, selective information sharing, information asymmetry and information distortion can prevent dispersed knowledge from becoming collective knowledge. At the interactional level, production blocking, evaluation apprehension and communication apprehension determine whether members can contribute their information and viewpoints effectively.

The social/interpersonal and group/consensus dimensions operate upon these individual contributions. Social pressure can encourage conformity, discourage minority influence and reduce willingness to challenge emerging positions. Group processes can subsequently transform these conditions into groupthink, polarisation, premature consensus or an Abilene-type outcome. Power and structural conditions cut across the entire process by determining the distribution of communicative opportunities and influence. Authority, status, gatekeeping and centralisation can therefore amplify or moderate the other pathologies. The framework is thus neither strictly linear nor hierarchical. It is better represented as a network of mutually reinforcing processes.

A Conceptual Framework for Communication Pathology in Collective Decision Making



The framework proposes that the quality of a collective decision is therefore a function not merely of the competence of its members but of the communicative conditions through which their competence is mobilised. A group composed of highly knowledgeable individuals can still produce a poor decision when information is selectively shared, dissent is suppressed, authority dominates deliberation or consensus is reached prematurely. Conversely, structured opportunities for dissent, balanced participation, information integration and critical evaluation can interrupt the progression from isolated pathology to collective dysfunction. The framework consequently positions communication not simply as a medium through which decisions are announced but as a central mechanism through which collective judgement is constructed.

Implications for Collective Decision Making

The conceptualisation developed in this paper has an important implication for the study and practice of collective decision making: improving decisions requires attention to the communicative process, not only to the final decision. Organisations and groups should therefore distinguish genuine consensus from silence, compliance or conformity. Deliberative arrangements should create opportunities for minority information, contrary evidence and independent judgement to enter the discussion before consensus is established. The framework also suggests that interventions should operate at several levels simultaneously. Cognitive awareness alone may be insufficient if structural arrangements continue to privilege particular voices. Likewise, encouraging participation may achieve little if information remains unequally distributed. Effective collective decision processes should therefore combine information-sharing mechanisms, opportunities for dissent, balanced participation, transparent authority structures and deliberate examination of alternative positions. Such arrangements can reduce the probability that several small communication distortions will converge into a major decision failure.

Conclusion

Communication pathology provides a useful conceptual lens for understanding why collective decision making can fail even when groups possess competent members and substantial information. The central argument of this paper is that defective collective decisions may originate in the communicative processes, not necessarily as noise, but

through which information is perceived, shared, challenged, negotiated and converted into consensus. Cognitive biases, informational deficiencies, interactional constraints, social pressures, group dynamics and structural inequalities do not operate in isolation; they can reinforce one another and progressively narrow the range of information and viewpoints available to the collective.

The framework proposed here therefore shifts attention from the question of whether a group reached agreement to the more consequential question of how that agreement was communicatively produced. A decision is not necessarily sound because it is collective, nor is consensus necessarily evidence of effective deliberation. The quality of collective judgement depends substantially on whether the communication system permits relevant information to circulate, dissent to be expressed, alternatives to be examined and influence to be reasonably distributed. Communication pathology is consequently not a peripheral problem of collective decision making. It is one of the processes through which collective judgement itself can become distorted.

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